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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,089	10/25/2000	Takeshi Maeda	500.37445CX1	2432

20457 7590 09/24/2003

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER

CHU, KIM KWOK

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 09/24/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/695,089

Applicant(s)

MAEDA ET AL.

Examiner

Kim-Kwok CHU

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 6/16/03 (paper 12).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-16, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-16, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Remarks

1. Applicant's Remarks filed on June 16, 2003 have been fully considered but they are not persuasive.

(a) Applicant states that the prior art of Fuji provides no disclosure or teaching of "information of edge shifting values of at least one of a leading and trailing edge of at least one recording pulse as recited in claims 7 and 8" (page 7 of the Remarks, lines 6-8). Accordingly, the claimed "edge shifting values" are data representing relationships between pulses. For example, Lee in Fig. 6 discloses that a lookup table 2 which generates recording pulses data (column 7, lines 54-64). The recording pulse data is inputted to drive the power controller 4 which generates writing or recording pulses such as L1, L2, L3 etc. with variable edge positions between pulses (Fig. 1A and 1B). In other words, the generated pulses such as L1, L2 and L3 have edge shifting values as expressed in the form of mark lengths, mark spaces which are based on the look-up table's pulse relationship; and

(b) Applicant states that the edge shifting values is functional (operational) rather than being non-functional descriptive material. Accordingly, a look-up table is non-functional means when it is not used for any functional purpose, as it is merely information on a disk. Once the look-up table is used to affect the operation of the storage device, it crosses

over to functional subject matter.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 7, 9-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuji (U.S. Patent 6,310,846) in view of Lee (U.S. Patent 5,241,524).

Fuji teaches a recording medium having elements and means very similar to that of the instant invention. For example, Fuji teaches the following:

- (a) as in claim 7, a disk-shaped substrate 40 (Fig. 4);
- (b) as in claim 7, at least one track being provided on the substrate (Fig. 6a1);
- (c) as in claim 7, a zone including at least one track (Fig. 8; a recording zone/area is an inherent feature of the recording medium 1); and

(d) as in claim 7, the zone stores a lookup table 57 which stores a pulse pattern (Fig. 2; column 4, lines 28-33).

However, Fuji does not teach the following:

(a) as in claims 7, 9-16 and 19, the lookup table includes a pulse pattern such as edge values about the waveform of a pulse train.

Lee teaches a look up table 2 which stores a list of pulse formation values (pattern) such as pulse widths, length and intervals (Fig. 6; column 7, lines 54-64).

As in claims 7, 9-16 and 19, a look-up table as a form of data stored in a recording medium such as Applicant's and Fuji's is considered as a non-functional descriptive material. And it is obvious to store any type of data such as Applicant's and Fuji's non-functional descriptive material on a disk.

With respect to the type of data in a look-up table, for example, Lee uses a look up table to store non-functional descriptive material such as a list of predetermined values of pulse widths, lengths and intervals etc. When there is a motivation of determining a predetermined shape of pulse/mark length, it would have been obvious to one of ordinary skill in the art at the time of invention to store Lee's mark length values in a look up table such as Fuji's, because the values of the mark length can be obtained instantly without going through a calculation process.

Furthermore, since Fuji stores a mark control pattern in his disk region 57, it would have been obvious to one of ordinary skill in the art to use a disk region similar to 57 as a look up table instead of Lee's RAM type lookup table, because hardware such as a RAM/ROM is not needed.

4. Claim 8 has limitations similar to those treated in the above rejection(s), and are met by the references as discussed above.

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action.

In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action

6. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.
20231 Or faxed to:

(703) 872-9314 (for formal communications intended for
entry. Or:

(703) 746-6909, (for informal or draft communications,
please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park
II, 2021 Crystal Drive, Arlington. VA., Sixth Floor
(Receptionist).

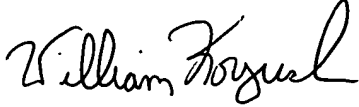
Any inquiry of a general nature or relating to the status of
this application should be directed to the Group receptionist
whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Kim CHU
whose telephone number is (703) 305-3032 between 9:30 am to 6:00
pm, Monday to Friday.

Ki 8/4/03

Kim-Kwok CHU
Examiner AU2653
September 4, 2003

(703) 305-3032


WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600